



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,355	10/29/2003	Brian Harold Kelley	030621	7524
23696	7590	03/14/2006	EXAMINER	
QUALCOMM, INC 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			ZAND, KAMBIZ	
			ART UNIT	PAPER NUMBER
			2132	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,355

Applicant(s)

KELLEY ET AL.

Examiner

Kambiz Zand

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

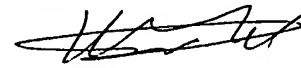
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


KAMBIZ ZAND
PRIMA^{RY} EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. **Claims 1-18** have been examined.

Specification Objection

2. Please update the "CROSS-REFERENCE TO RELATED APPLICATIONS" information on page 1 [0001] of the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. **Claims 1, 6, 10 and 14** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

privileged function is executed as part of the same execution thread as the application."

Each of applicants' independent claims recite the Imitation, wherein the

Yet, in Figure 3 and its related description in the specific Jon applicants describe a system which switches 'to the privileged stack and privileged registers while, seemingly, saving the non-privileged thread's context. in Patent No. 6,175,916 it states in the

Art Unit: 2132

background of the invention: "generally, an execution thread comprises a sequence of processor instructions that execute in a single processor context. The particular elements of a thread's context vary depending on the microprocessor being used. For purposes of the discussion herein, however, a thread's context always includes its private memory stack or stacks. Therefore, by definition, a single thread always uses the same private memory stack. Any time the processor context changes to a different memory stack, the processor is said to be executing a different thread." As best the examiner can determine, the applicants' system switches from executing the user thread, to executing the privileged thread, and back to executing the user thread. This does not seem to be a situation which one of ordinary skill would recognize as the function seems to operate as a separate thread.

Claim Rejections - 35 USC § 101

5. **Claims 1-18** are rejected under 35 U.S.C. 101 because the claims although tangible but lacks usefulness unless it disclose such an element. Examiner suggests inclusion of the limitation " in the device, thereby providing access to privileged mode hooks to applications executing under either mode" exactly after the limitation "mode" last line of claim 1, 6, 10 and 14 or other phrases acceptable to applicants in order to overcome the above rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1-18** are rejected under 35 U.S.C. 102(e) as being anticipated by Dahan et al (2003/0140245 A1).

Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner

As per claims 1, 6, 10 and 14 Dahan et al (2003/0140245 A1) teach an apparatus, computer readable medium, method, means and logic for allowing an application to invoke a function on a device (see abstract; fig.1 and 3 and associated text), wherein the device includes at least two operating modes comprising a privileged mode and a

non-privileged mode (see fig.5 and associated text), and the function executes in the privileged mode (see fig.5, items 510-516 and associated text), the method comprising: receiving a request from the application to invoke the function (see ; determining the operating mode of the application (see fig.5 and associated text); invoking the function using an interrupt (see fig.2, item 360 and associated text of fig.2 in relationship with fig.5 and associated text), if the application is executing in the non-privileged mode (see fig.5, item 500-502 and associated text), wherein the function is executed within the same task as the application (see fig.5 and 6 and associated text); and invoking the function directly, if the application is executing in the privileged mode (see fig.5, item 512-516 and associated text and fig.6 and associated text).

As per claims 2, 7, 11 and 15 Dahan et al (2003/0140245 A1) teach the apparatus, computer readable medium and method/means of claims 1, 6, 10 and 14 wherein the interrupt is a software interrupt (see fig.5 and associated text; abstract).

As per claims 3, 8, 12 and 16 Dahan et al (2003/0140245 A1) teach the apparatus, computer readable medium and method/means of claims 1, 6, 10 and 14, further comprising determining the function based on an identifier that is passed with the request (see page 5 [0076]).

As per claims 4 and 17 Dahan et al (2003/0140245 A1) teach the apparatus, computer readable medium and method/means of claims 1 and 14, further comprising

returning to the application when the execution of the function is completed (see fig.5, item 516 and associates text).

As per claims 5, 9, 13 and 18 Dahan et al (2003/0140245 A1) teach the apparatus, computer readable medium and method/means of claims 1, 6, 10 and 14, wherein the device is a wireless device (see fig.12 and associated text).

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1-2, 4, 6-7, 10-11, 14-15 and 17** are rejected under 35 U.S.C. 102(b) as being anticipated by Ginsberg et al. (Patent No. 6,175,916).

Ginsberg taught the invention of exemplary claims 1, 6, 10 and 14 including a method for providing transitions between operating modes of a device, wherein the operating modes comprise a privileged mode and a non-privileged mode, and the method comprising: executing an application in the non-privileged mode', generating an interrupt to request the services of a privileged function', and transitioning to the privileged mode to execute the privileged function, wherein the privileged function is executed as part of

Art Unit: 2132

the same thread of execution as the application and all other limitations (col. 5, lines 1-23., col. 6, line 65 through col. 7, line 20., and col. 8, line 50 through col. 10, line 17).

Also see the entire reference for more details.

As per claims 2, 7, 11 and 15 Ginsberg teach the apparatus, computer readable medium and method/means of claims 1, 6, 10 and 14 wherein the interrupt is a software interrupt (see col. 7, line 49 through col. 8, line 17).

As per claims 4 and 17 Ginsberg teach the apparatus, computer readable medium and method/means of claims 1 and 14, further comprising returning to the application when the execution of the function is completed (see col.10, line 1-14).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 5, 9, 13 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginsberg in view of Applicant Admittance Prior Art (AAPA).

Ginsberg teaches the apparatus, computer readable medium and method/means of claims 1, 6, 10 and 14 as applied above. He did not specifically teach his invention as part of software for wireless device however, problem Ginsberg solved existed at the time of applicants' invention (see applicants' Field of Invention and Description of the Related Art). Therefore, it would be obvious to one of ordinary skill in the art to apply Ginsberg's invention to the software of wireless devices to solve the same problem. wherein the device is a wireless device

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 2002/0138727 A1 teach system and process for enhancing method calls of special purpose object-oriented programming languages to have security attributes for access control.

US 2003/0031148 A1 teach computer system with privileged-mode, modem driver.

U.S.Patent No. US (6,553,384 B1) teach transactional name service using privileged mode of operation.

US 2005/0076186 A1 teach systems and methods for improving the x86 architecture for processor virtualization, and software systems and methods for utilizing the improvements.

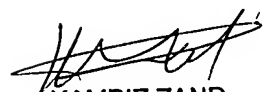
U.S.Patent No. US (6,931,546 B1) teach system and method for providing application services with controlled access into privileged processes.

Please also see PTO 892 for other related arts.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Zand whose telephone number is (571) 272-3811. The examiner can normally be reached on Monday-Thursday (8:00-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Art Unit: 2132

supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone numbers for the organization where this application or proceeding is assigned as (703) 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KAMBIZ ZAND
PRIMARY EXAMINER

03/07/2006

AU 2132